

Serial No. 10/611,726
Docket No. 390086.00010
Inventor Name: Base V. Paul
Title: Method for Dynamically Editing and Enhancing Image-Processing Chains in Medical Imaging Equipment

REMARKS/ARGUMENTS

Claims 1-20 have been rejected. Claims 4 and 6 have been amended. Claims 13 - 15 have been canceled. Claims 1 - 12 and 16 - 20 are currently pending.

Specification

The second paragraph on page 9 has been amended to refer to "user interface application 40."

Drawings

Fig. 2 of the drawings have been amended to include the reference number 20.

Claim Objections

Claim 4 has been amended to correct an informality. Claim 15 has been canceled.

Claim Rejections - 35 U.S.C § 112

Claim 6 has been amended to replace "algorithm module" with "plurality of image processing elements."

Claim Rejections - 35 U.S.C. § 102

Claims 1-2, 4-6, 16 and 19 have been rejected under 35 U.S.C. § 102(b) as being anticipated by "A visual programming interface for an image processing environment" by Koelma and Smeulders ("Koelma"). Applicant traverses this rejection.

The Koelma reference lacks any indication that it was published and does not include any evidence of a date of publication. Therefore, the Koelma reference can not be relied upon as prior art under 35 USC § 102. See MPEP § 2128.

Even if the Koelma reference can be relied upon as prior art, the reference fails to disclose or suggest the invention as claimed in claims 1-2, 4-6, 16 and 19.

The Koelma reference discloses a visual programming interface of an image processing environment that is independent of the underlying library of image processing functions. Visual programming interfaces, specifically hierarchical data flow graphs, are touted as an advancement over command based interfaces and menu & dialogue interfaces.

Independent claims 1 and 16 require, among other things, relating the image processing chain to a clinical protocol. It is asserted that the Koelma hierarchical data flow graphs are image processing chains. It is also asserted that relating the image processing chain to a clinical protocol is taught by the statement that "[v]isual programs can be stored and retrieved as visual programs or they can be stored as C-programs." Koelma does not teach or suggest relating an image processing chain to a clinical protocol because the Koelma reference is simply stating that visual programs can be stored in two different formats. The visual programs of Koelma are actually the hierarchical data flow graphs in visual format. The visual programs are not clinical protocols.

The Koelma reference does not disclose or suggest clinical protocols; therefore, the Koelma reference can not disclose relating the image processing chain to a clinical protocol. It is asserted in the rejection of claim 4 that a single visual function is a clinical protocol. Rather, Koelma discloses that "a hierarchical structure in the data flow graph can be created by combining several functions into a single visual function with its own user defined icon." The single visual function with its own user defined icon is just another function in a data flow graph and, thus, the single visual function is not a clinical protocol.

For all of the above reasons, Applicant believes that each of claims 1 and 16 and claims that depend there from are novel over Koelma and requests that the rejections be withdrawn.

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Claim Rejections - 35 U.S.C. § 103

Claims 3 and 20 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Koelma in view of U.S. Patent 6,078,067 (Fulghum). Claims 7 and 17-18 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Koelma. Claims 8-9 and 11-12 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Koelma in view of Applicant acknowledged prior art techniques. Claims 10 has been rejected under 35 U.S.C. § 103(a) as being unpatentable over Koelma in view of U.S. Patent 5,005,578 (Greer).


Even if the Koelma reference can be relied upon as prior art, the combined references fail to disclose relating the image processing chain to a clinical protocol. Therefore, the Office Action has not established a prima facie case of obviousness under 35 U.S.C. § 103 with respect to claims 3, 7 - 9, 10-12, 17-18, and 20.

Conclusion

In view of these distinctions between the subject matter of the present claims and teachings of the cited patents, reconsideration and allowance of the present application are requested.

Although no additional fees are believed due for filing this amendment, if an additional fee is deemed to be due, please charge any fee to Deposit Account No. 17-0055.

Respectfully submitted,

By: 
Jeremy J. Westlake
Reg. No. 57,470
Attorney for Applicant
Quarles & Brady LLP
411 E. Wisconsin Avenue
Milwaukee WI 53202-4497
PH: (414) 277-5723
FAX: (414) 978-8792